

EXCLUDED SPECIES

Lentinus caespitosus Berk. Hook. Lond. Jour. 6: 317. 1847.

This seems to be a *Clitocybe*, probably the same as *Clitocybe monodelpha* Morg.

Lentinus verrucosus (Kickx) Sacc. Syll. Fung. 5: 613. 1887.

This is a *Lenzites*; see Bull. Acad. Sci. Brux. 8²: 73. 1841; also, Sacc. Syll. Fung. 9: 78. 1891.

NEW YORK BOTANICAL GARDEN.

EXPLOSIVE DISCHARGE OF ANTHEROZOIDS IN
CONOCEPHALUM

BY CYRUS A. KING

In June, 1902, Dr. George J. Peirce published in the *Bulletin of the Torrey Botanical Club* some observations on the forcible discharge of the antherozoids of *Asterella Californica*.

He made the discovery in January, 1901, but in January, 1902, the subject was studied in more detail. He found that antherozoids were forcibly ejected under natural conditions as well as in the laboratory, and that in some cases they were thrown to a vertical height of 14–20 cm. The expulsion was found to be due to the increased turgidity of certain cells within the antheridium and of others in the cushion below it. The mutual pressure due to the increased turgidity in both regions produced the rupture above, where there was no external pressure on the antheridium.

F. Cavers (*Annals of Botany*, January, 1903) has noticed the expulsion of antherozoids also from *Conocephalum conicum* (*Fcgatella conica*). His observations were made first in the laboratory and were confirmed later under natural conditions. He found that the antherozoids were thrown to a height of more than two inches and that the explosions were most frequent on moist, sunny days and when exposed to direct sunlight.

In March, 1901, the writer also observed the forcible expulsion of antherozoids from *Conocephalum conicum*. The material was growing in an experiment room at Indiana University and

was so situated that it was exposed only to the morning sun. (The room was thoroughly sprayed from a hydrant both morning and evening.) The explosions occurred after four in the afternoon and immediately followed a spraying of the plants. Within one to three minutes the plants looked as if smoke was coming from them. This was so conspicuous as to be noticed from any part of the room. A closer view showed that the smoke-like substance was coming in little puffs from the surface of the liverworts, not unlike a tiny battery. The material seemed most abundant from two to four inches above the plants. The writer and Professor Mottier both held slides over the plants and caught the spermatozoids in great numbers. The conspicuous discharges lasted only about five minutes and in four or five minutes more none could be noticed.

The above observations seem to indicate that *moisture alone* may be the inciting cause of the explosion in *Conocephalum conicum*.

DEWITT CLINTON HIGH SCHOOL, NEW YORK CITY,
March 16, 1903.

PROCEEDINGS OF THE CLUB

WEDNESDAY, FEBRUARY 25, 1903

The Club met at the usual hour at the New York Botanical Garden, with President Brown in the chair. There were 30 persons present.

The resignation of Professor H. F. Osborn, of New York City, was accepted.

The president announced the following standing committees for 1903:

Committee on Finance: H. H. Rusby, J. I. Kane, C. F. Cox.

Committee on Admissions: Cornelius Van Brunt, Delia W. Marble, J. K. Small.

Committee on Local Flora: Phanerogamia — N. L. Britton, E. P. Bicknell, H. H. Rusby, Fanny A. Mulford. Cryptogamia — L. M. Underwood, M. A. Howe, Elizabeth G. Britton.